UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/538,473	06/07/2005	Thomas Narbeshuber	273009US0PCT	2279	
	7590 11/23/200 AK, MCCLELLAND	EXAMINER			
1940 DUKE STREET			VALENROD, YEVGENY		
ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER	
			1621		
				·	
			NOTIFICATION DATE	DELIVERY MODE	
			11/23/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com oblonpat@oblon.com jgardner@oblon.com

Office Action Summary		Application No.	Applicant(s)			
		10/538,473	NARBESHUBER ET AL.			
		Examiner	Art Unit			
		Yevgeny Valenrod	1621			
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover sheet with the c	orrespondence ad	ldress		
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status		•				
2a)⊠	•	action is non-final.				
3)□	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Dispositi	on of Claims					
5)□ 6)⊠ 7)□ 8)□ <b>Applicati</b> 9)□ 10)□	Claim(s) 8-14 is/are pending in the application.  4a) Of the above claim(s) is/are withdraw Claim(s) is/are allowed.  Claim(s) 8-14 is/are rejected.  Claim(s) is/are objected to.  Claim(s) are subject to restriction and/or on Papers  The specification is objected to by the Examine The drawing(s) filed on is/are: a) access applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Examine The oath or declaration is objected to by the Examine Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Examine The oath or declaration is	wn from consideration.  r election requirement.  r.  epted or b) □ objected to by the Edrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). jected to. See 37 CF			
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.						
2) D Notice 3) D Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other:	ite			

Application/Control Number: 10/538,473

Art Unit: 1621

#### **DETAILED ACTION**

Rejection of claims 8 and 10-14 made over Maas et al under 35 USC 103(a) is withdrawn in view of applicants amendment.

Rejection of claim 9 has not been traversed and is therefore maintained.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 9 is again rejected under 35 U.S.C. 103(a) as being obvious over Maas et al. (US 20004/0010161 A1) for the reasons of record.

Claims 8 and 10-14 are rejected under 35 U.S.C. 103(a) as being obvious over Maas et al. (US 20004/0010161 A1) in view of Scheibel et al. (WO 99/05241).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed

in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

### Scope of prior art

Maas et al teach a process for preparation of alkylarylsulfonates (see abstract). Steps a-e (abstract) of the process described by Maas et al correspond to steps a-e of claim 8 and of 9. The limitations of claim 14 are met by claim 6 of Maas et al.

## Ascertaining the difference

Maas et al teach the process of the instant invention, however they fail to provide an example where all of the limitations of the instant claims are present. The said limitation are:

- In step b of claim 8, removal 90% or more of lower boiling constituents of C<sub>10</sub>-C<sub>12</sub> olefins, which are di- or poly-branched.
- In claims 12 and 13 the applicant claims degree of branching from 1-2.5 (claim
  12) and 1-2.0 (claim 13).

# Secondary reference

Sheibel et al teach that highly branched alkylbenzenesulfonate surfactants were found to be poorly biodegradable (page 1, Background of the invention, lines 1-3). They

Art Unit: 1621

also teach that linear alkylbenzenesulfonate surfactants suffer from limitations pertaining to the scope of their utility particularly in hard water and cold water cleaning properties (Page 1, Background of the Invention lines 8-10).

### Obviousness

The issue at hand is whether one of ordinary skill in the art would have motivation to remove the higher branched C<sub>10</sub>-C<sub>12</sub> olefins from the mixture produced in step (b) as described by Maas. Sheibel et al. provide motivation when they describe the poor biodegradability of the highly branched alkylbenzenesulfonate surfactants. In order to improve biodegradibily of the surfactants taught by Maas et al. one of ordinary skill in the art would have been motivated to modify the process of Maas et al to remove the higher boiling C<sub>10</sub>-C<sub>12</sub> olefins prior to alkylation of the aromatic hydrocarbons.

The degree of branching as claimed in the instant claims 12 and 13 is obvious. Maas et al. teach optional addition of linear olefins prior to the reaction with aromatic hydrocarbon (step c). The degree of branching can easily be adjusted to the desired composition by regulating how much linear olefins are added in step (c). Alternatively, one of ordinary skill in the art practicing the invention of Maas et al while removing the highly branched olefins as suggested by Sheibel et al, would expect the degree of branching to be the same as instantly claimed.

### Conclusion

Claims 8-14 are pending.

Claims 8-14 are rejected.

Art Unit: 1621

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yevgeny Valenrod whose telephone number is 571-272-9049. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yevgeny Valenfod

Patent Examiner

Technology Center 1600

Yvonne Eyler

Supervisory Patent Examiner Technology Center 1600